

WE CLAIM:

1. An *in vitro* method for producing dendritic cells from pluripotent cells, comprising contacting the pluripotent cells with a factor for a time sufficient for the pluripotent cells to mature and express characteristics of dendritic cells.

5 2. The method of claim 1, wherein the pluripotent cells are CD14 positive mononuclear pluripotent cells.

3. The method of claim 1, wherein the pluripotent cells are peripheral blood mononuclear cells.

4. The method of claim 1, wherein the pluripotent cells are monocytes.

10 5. The method of claim 1, wherein the factor comprises GM-CSF.

6. The method of claim 5, wherein the factor further comprises a cytokine selected from the group consisting of IL-4; IL-13; IL-4 and IL-1 β ; IL-13 and IL-1 β ; IL-4 and TNF- α ; IL-13 and TNF- α ; IL-4, IL-1 β , and TNF- α ; IL-13, IL-1 β , and TNF- α ; IL-4 and IL-12; IL-13 and IL-12; IL-4 and stem cell factor, IL-13 and stem cell factor; IL-4 and IL-15; and IL-13 and IL-15.

15 5. The method of claim 5, wherein the GM-CSF is present at a concentration of between about 200 U/ml to about 2000 U/ml.

7. The method of claim 1, wherein the dendritic cells express high levels of MHC class molecules.

20 8. The method of claim 1, wherein the dendritic cells have the capacity to stimulating resting T cells.